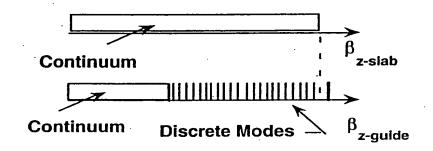


$\beta = (2\pi/\lambda) x$ Modal Index



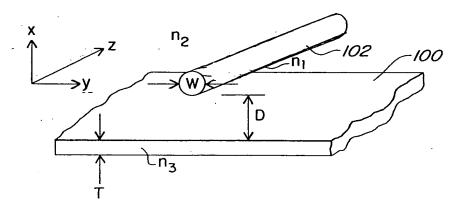
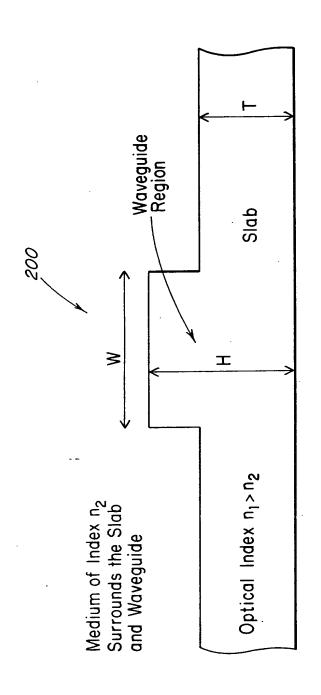


FIG. 1



Lateral Direction———FIG.2

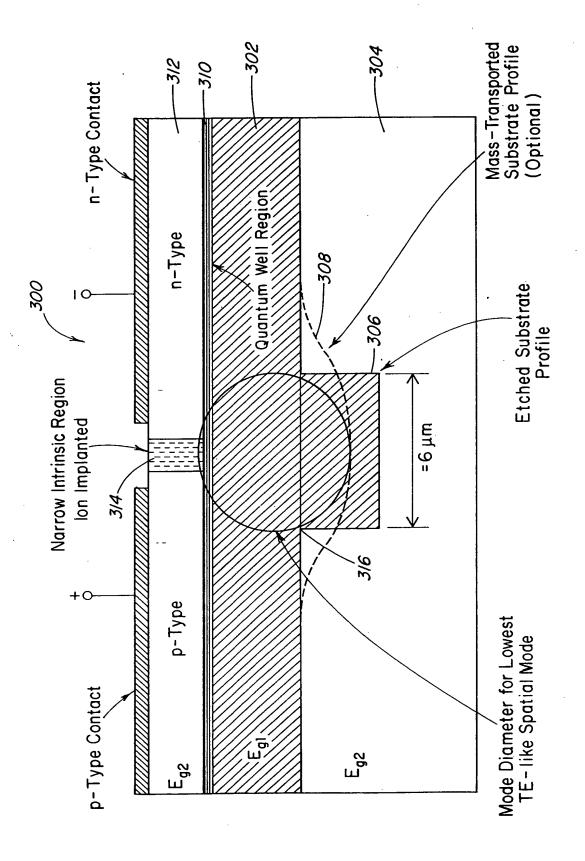


FIG.3

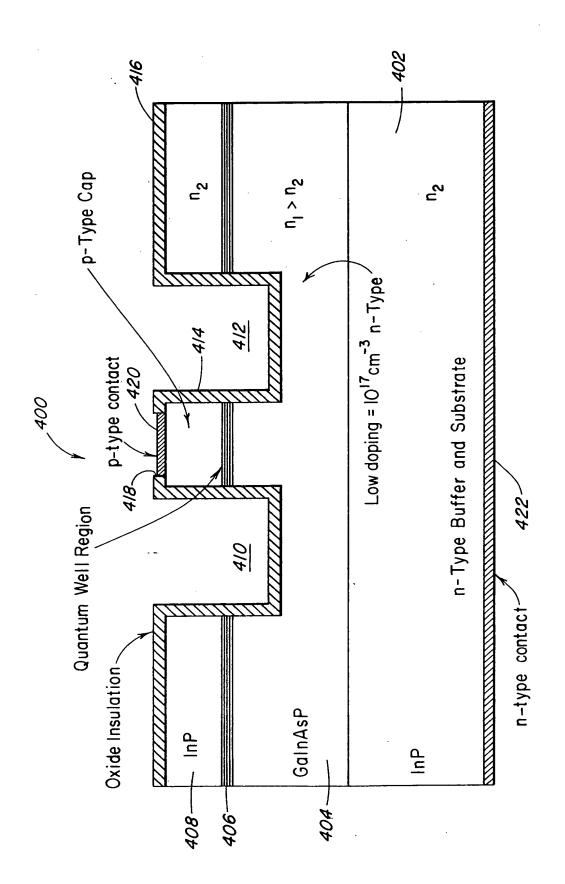


FIG. 4

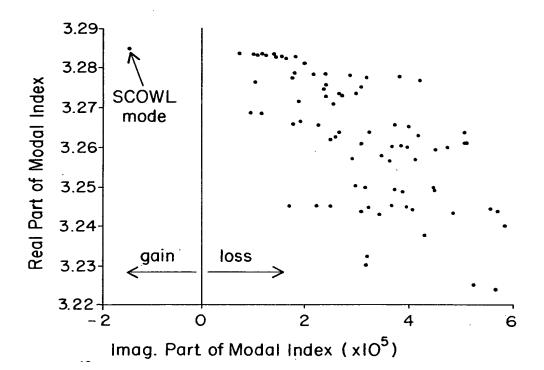


FIG. 5

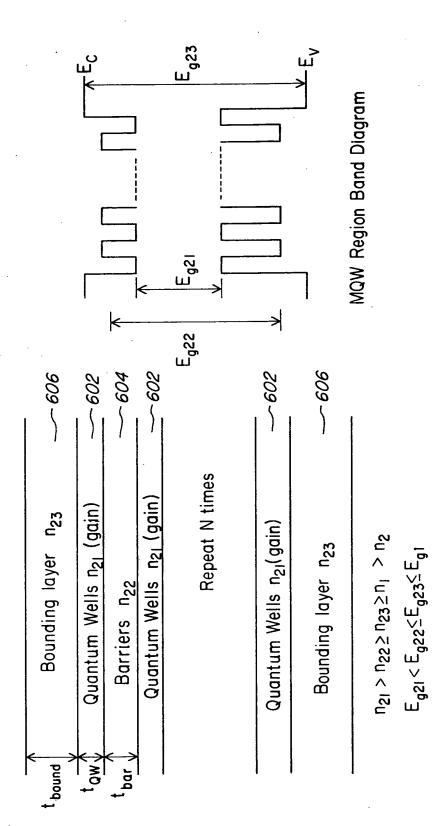
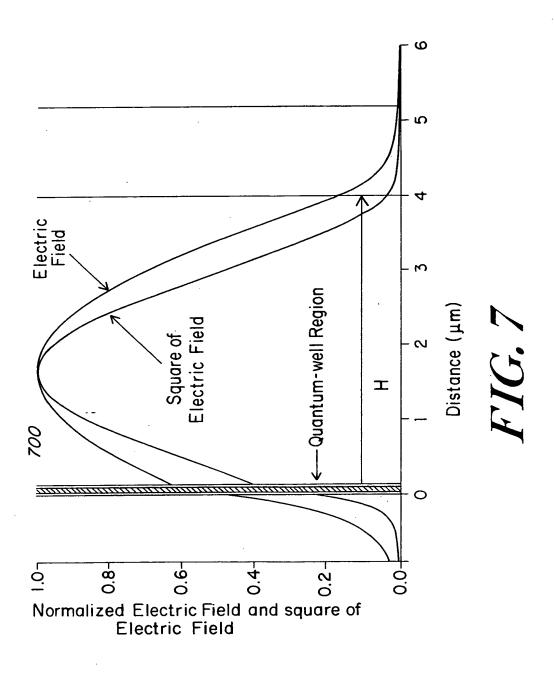
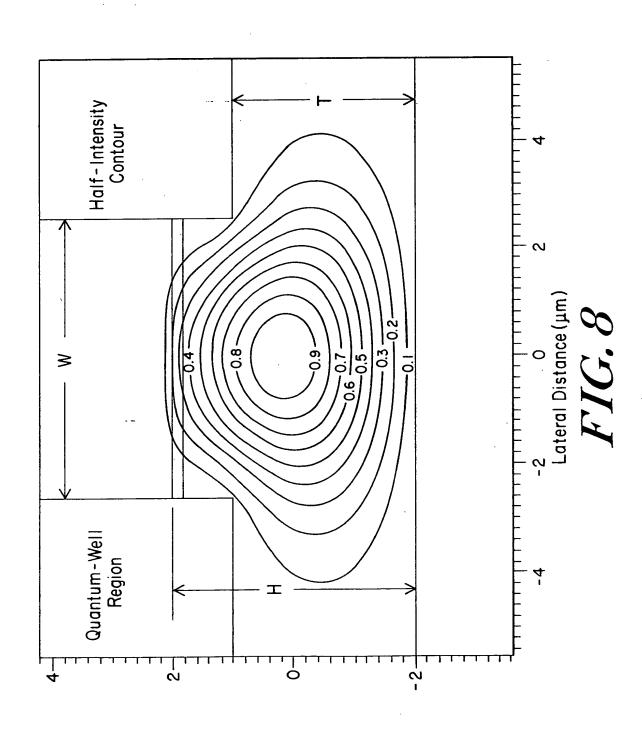
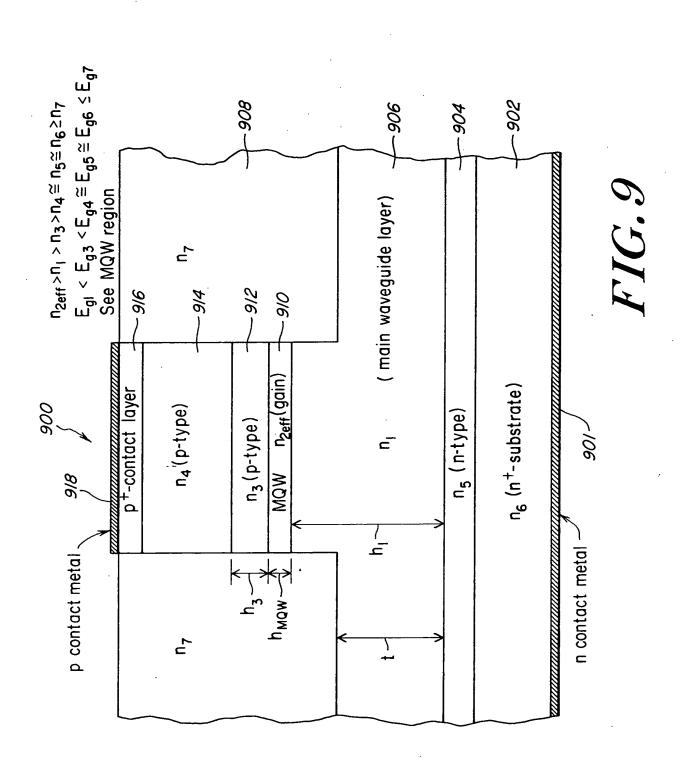


FIG.6







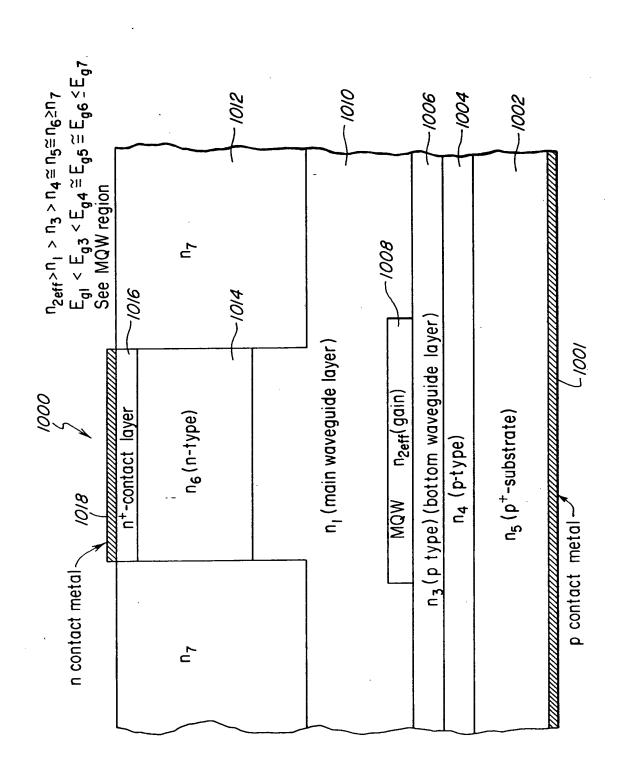


FIG. 10

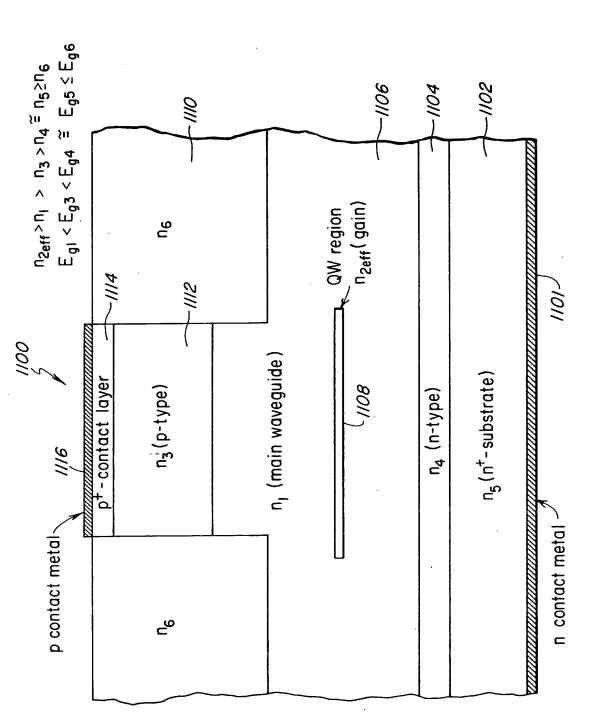
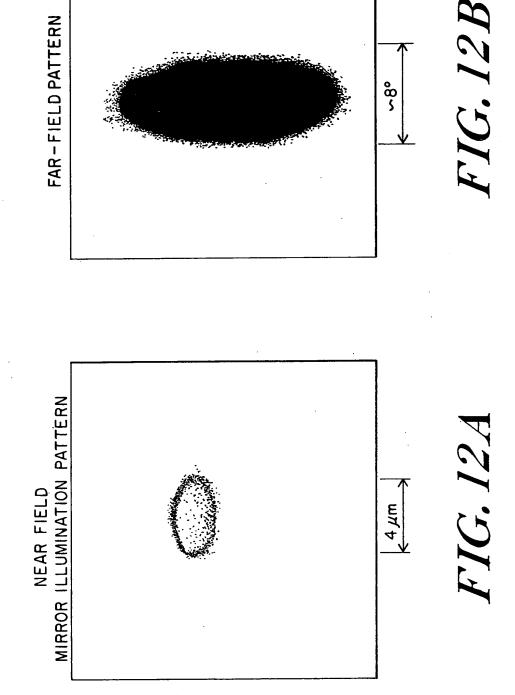
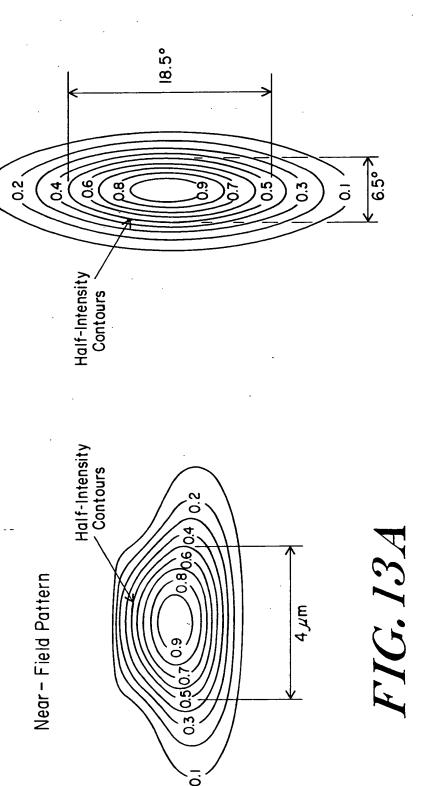


FIG. 11





Far – Field Pattern

FIG. 13B

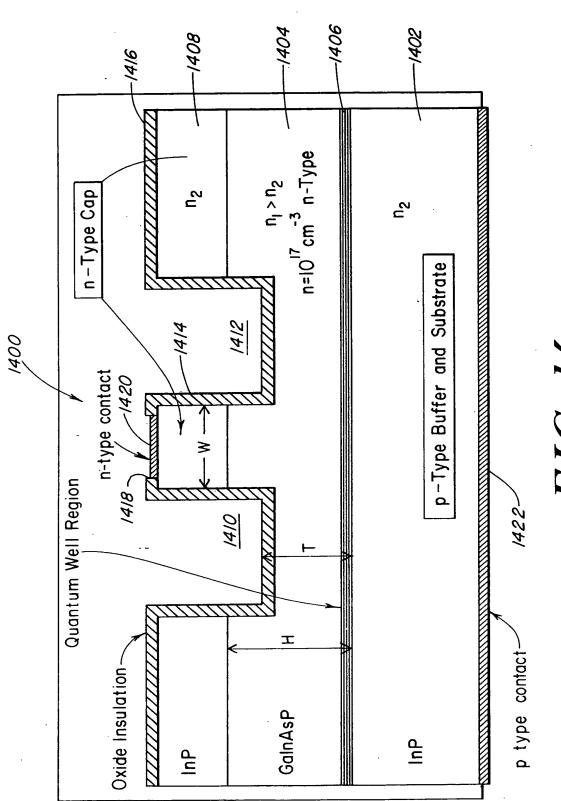


FIG. 14

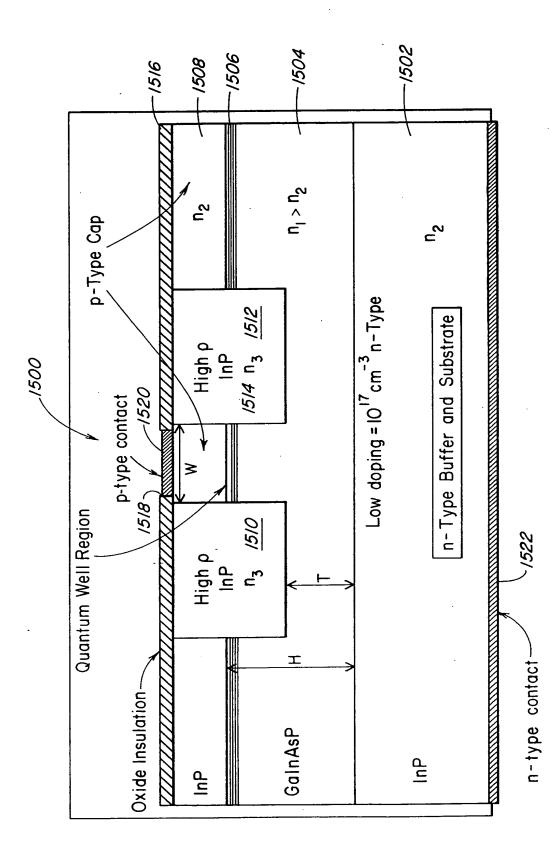


FIG. 15

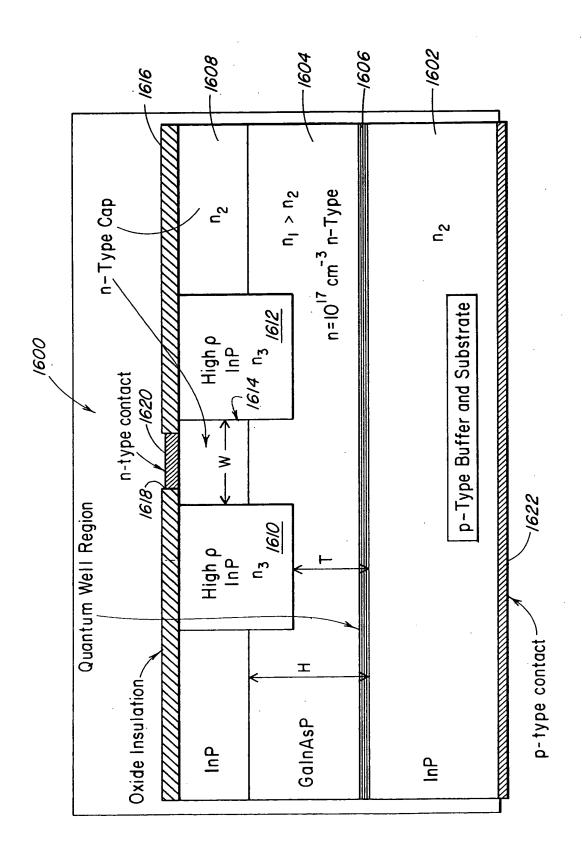


FIG. 16

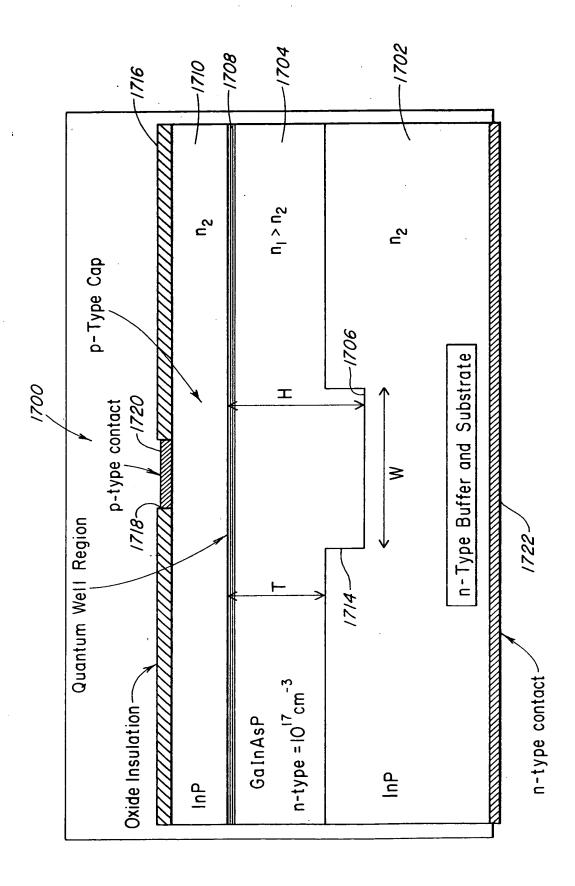


FIG. 17

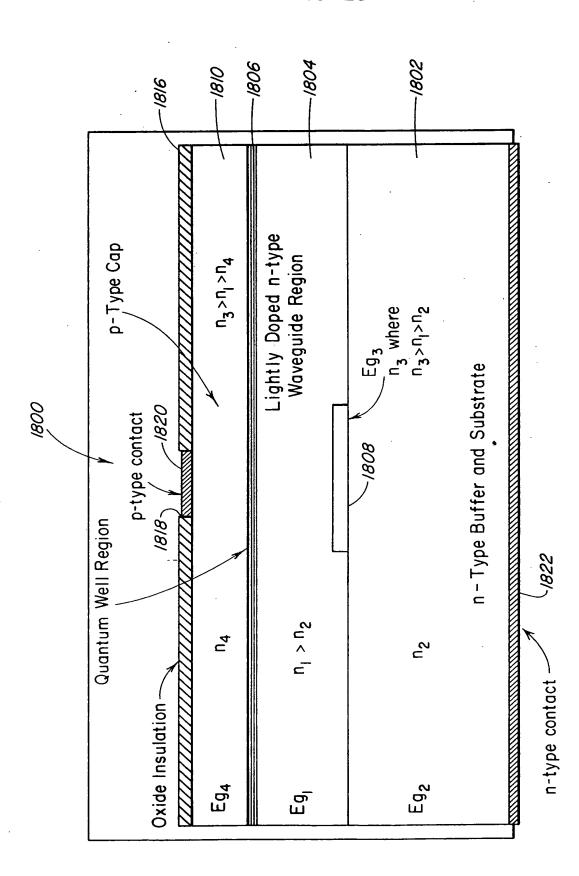


FIG. 18

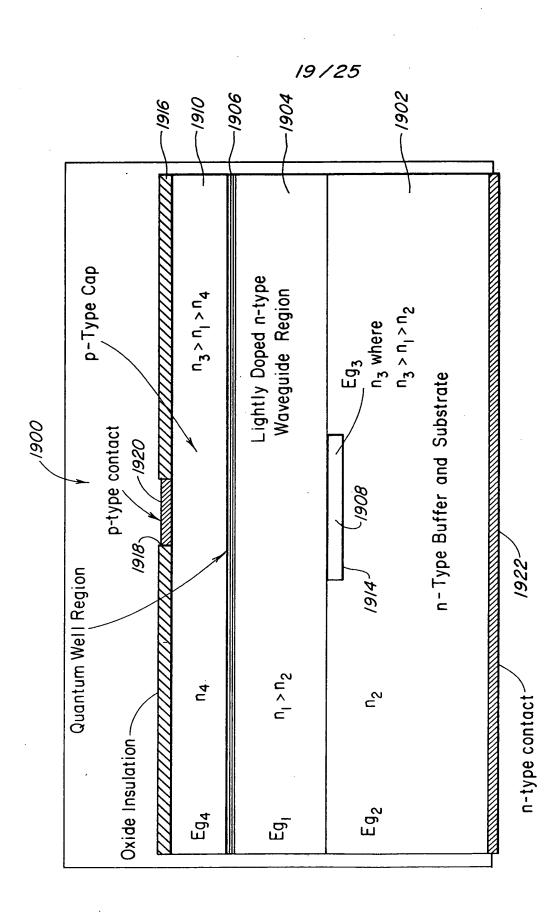


FIG. 19

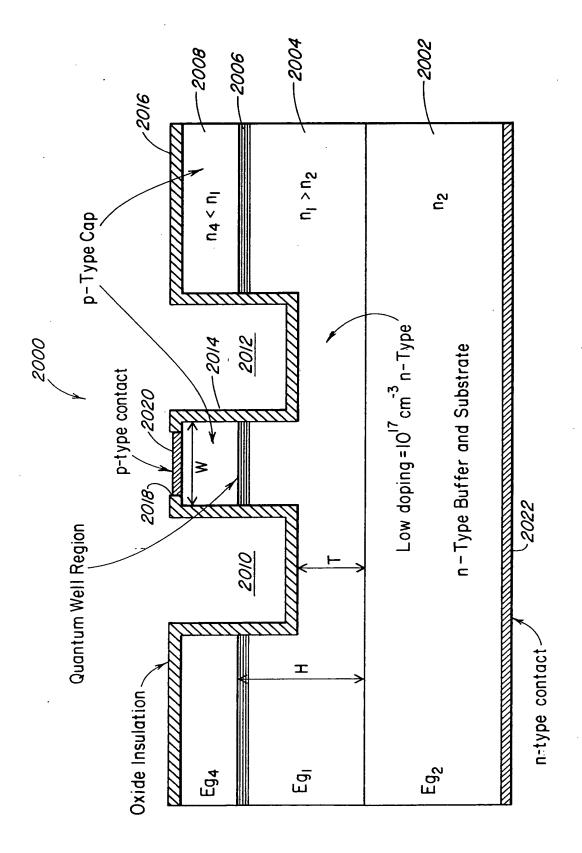


FIG. 20

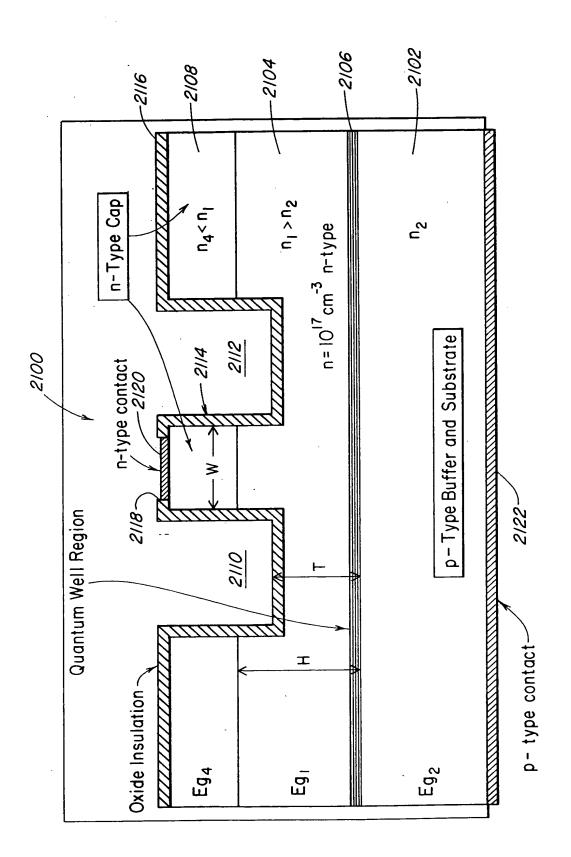


FIG. 21

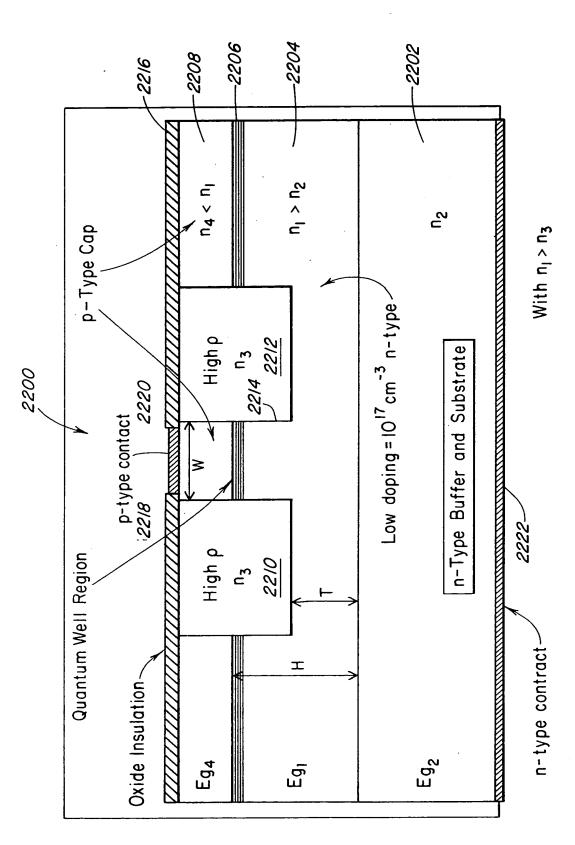


FIG. 22

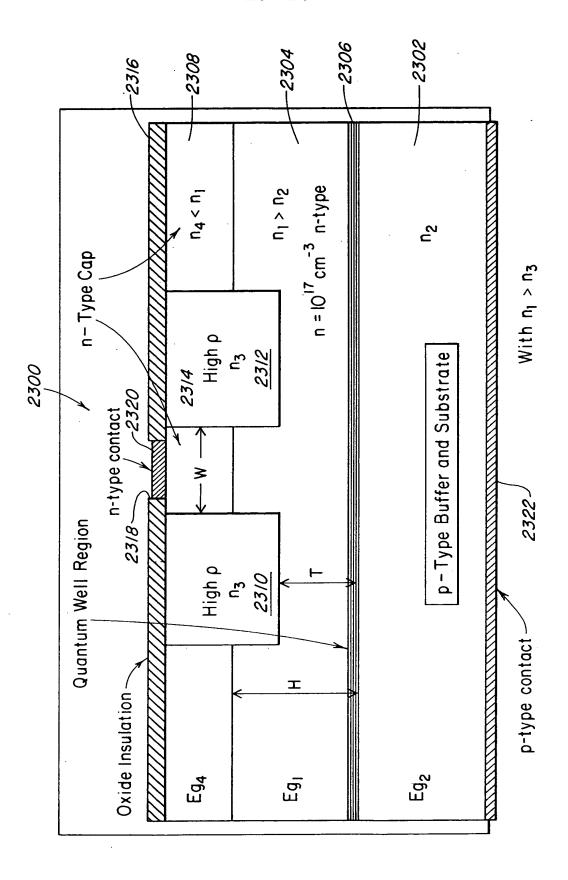


FIG. 23

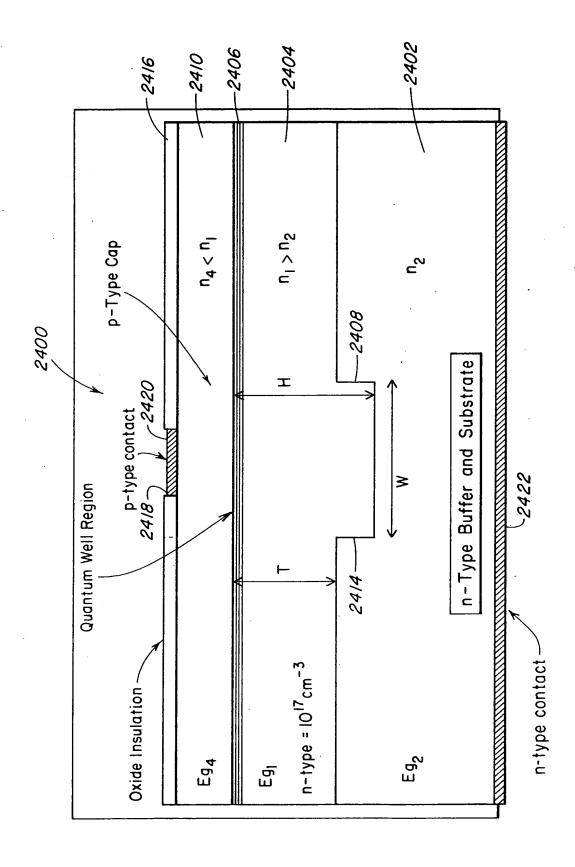


FIG. 24

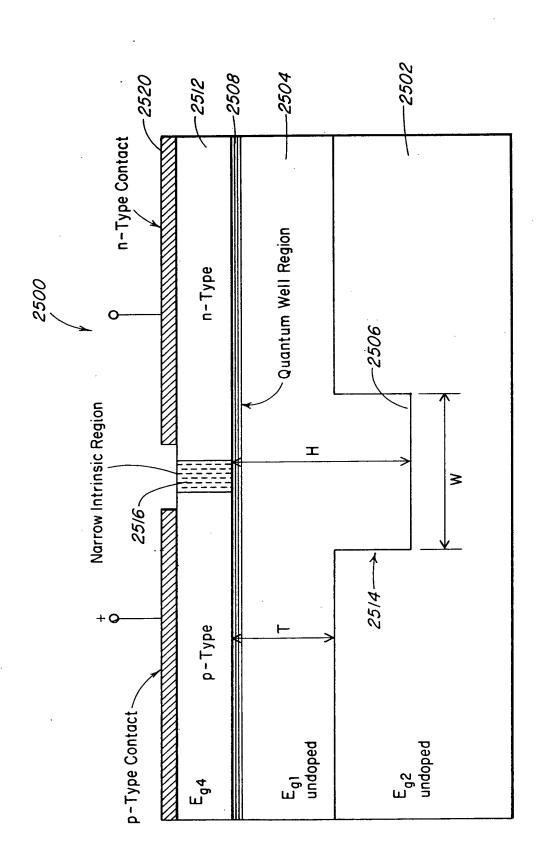


FIG. 25